



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the First Tuesday of each month.



PUBLIC SERVICE EVENTS

Interested in helping? Visit <http://www.rars.org/public-service.php>

frequently for our 2017 ham public service schedule.

RARS General Meeting

Topic: RARS pot luck Holiday party.

Sign up at the [RARS website](#).

RARS Officers induction.

Date: December 12, 2017

Time: Meeting at 7:30PM

Informal gathering and refreshments from 7 - 7:30 p.m.

Where: Ridge Road Baptist Church. 2011 Ridge Rd., Raleigh

New HAM / Elmer meeting, 6:00 p.m. before member meeting

Tadd Torborg, KA2DEW, Elmer Coordinator

[Click here for more information.](#)

President's Message

December 2017

I hope everybody had a great Thanksgiving. I noticed that the ham radio stores were again in on the Black Friday and Cyber Monday deals. Maybe somebody saved a few bucks on that ham item on your list.

The Christmas season is again upon us. I'd like to take this opportunity to wish everyone a very Merry Christmas and Happy Holiday season. Please be safe in your travels as you visit with friends and family near and far.

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RARS Officers

PRESIDENT

Dennis Keith
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NC4DK@yahoo.net

VICE PRESIDENT

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N4TL
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SECRETARY

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TREASURER

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The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website (www.rars.org).

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the third Friday of the preceding month. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: **Second** Tuesday of each month

Location: Ridge Road Baptist Church 2011
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to the monthly (first Tuesday) RARS Supper, 6:30PM, at the Golden Corral Restaurant, 6129 Glenwood Ave., Raleigh. Informal and Dutch, just bring your appetite and best rag to chew. 73, Chuck, K4HF

RARS Repeaters in Raleigh

146.640 and 444.525

Join us for the nightly RARS net at 8 p.m. on the 146.640 repeater. All hams holding a Technician class license or higher are invited to check in. We welcome both RARS and non-RARS members to the net.

There is a net Listing on the RARS website click here. <http://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk-in testing in February, May, August and November at 5:30PM, prior to RARS membership meetings at Ridge Road Baptist Church; the RARSfest in April; the Cary Swapfest in July; the JARS-Fest in November; and following RARS license classes. Please bring a photo ID, your original and a copy of your current license, your \$14 exam fee, and any valid CSCEs that prove passing elements beyond that of your current license. Visit www.rars.org for more information.

President's Message continued

The end of the year 2017 also marks the end of my 2-year term as President of the Raleigh Amateur Radio Society. Sometimes it seems as if I've been here forever and sometimes it seems like only a couple of months. Either way, I would like to express my sincere thanks and appreciation for the overwhelming support I have received from the RARS membership as well as the officers and committee chairs.

For those of you not familiar with the RARS Board, they do more than just vote to pay the bills each month. There are lots of business matters that must be addressed on a monthly basis. Our repeaters are not "plug and play". A tremendous amount of behind the scenes work goes in to ensure that they remain in proper working order. There are power and internet bills for the repeater sites, meeting space rental, insurance for club events, license classes, Field Day, and many other business items. And these do not even include RARSfest, which entails a committee of its own. The board also addresses concerns of the membership in other areas. Suggestions and recommendations are brought to the board on a regular basis by the at-large board members as well as others. Each issue is dis-

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President's Message continued

cussed by the board with a decision being made by the board members.

As my term comes to the end, I am very optimistic on the future of RARS. The incoming President, Carl Davis, W8WZ, is a capable leader who will work to move the club forward. I also feel that the other newly elected officers, directors, and chairs, as well as those completing their current terms, will have the best interests of RARS in mind.

I will close in wishing you all a healthy and prosperous 2018 and beyond.

73, Dennis, NC4DK

RARS has a new website URL just for the RARSfest

<http://rarsfest.org>

Thanks to K4HM - Hank

RARS also is on Facebook and Twitter.

<https://www.facebook.com/Raleigh-Amateur-Radio-Society-273341139963/>

<https://twitter.com/hashtag/rarsfest>

[https://twitter.com/search?
vertical=default&q=rarsfest&src=typd](https://twitter.com/search?vertical=default&q=rarsfest&src=typd)

RARS December Birthdays

Charley	KN4IBT	12/01
Dave	KB8V	12/01
Rick	K4RLE	12/01
Smitty	K4ACS	12/02
Gary	KI4KKY	12/03
Glenn	KA4GLN	12/04
Ronnie	W4RJF	12/06
Virginia	NC4VA	12/09
Frank	KA2FWC	12/12
Roger	KS4VX	12/12
Chuck	KE4LYK	12/13
Ralph	KF4NIR	12/14
Conner	KE4ZNS	12/15
John	KM4MMA	12/16
Brandon	KM4PFT	12/17
Charles	KM4AMT	12/18
Gizmo	KW4EMG	12/18
Roger	W3EZR	12/18
Ronald	KC4RB	12/21
Robert	K4WWR	12/25
Mario	N4TSV	12/25
Mike	WD4MB	12/27
Darrell	W4CX	12/29
Jason	KK4TLZ	12/29
Dick	KD4ISC	12/31
Gerry	K4GCJ	12/31

New RARS Members

Michael Ramsey	KD4OKR
Chris Floyd	KN4IBV
Charley Bratton	KN4IBT
Ernesto Sobrevilla	KN4HZT

November RARS Presentation



Tom McKee, K4ZAD, talking about the Digital mode WSPR.

Tom Provided a list of website links that have information about the hardware and software needed for this mode. See the list on the next page.

Tom talked about using an SDRplay receiver and a Raspberrypi for the transmitter. The WSPR mode and other digital modes can also be done with a regular Ham transceiver with an audio interface like the SignalLink USB or other audio interfaces. Some radios have the sound interface built in, like the ICOM IC-7300 and Kenwood TS-590S. If you have one of those newer radios all you need is the [WJST](http://www.wjst.com) software and a USB cable to connect to the radio.

November RARS Presentation continued

WSPR Information Links

<http://www.sdrplay.com/rsp1/> (The Receiver)
http://sdr-radio.com/v3_help (Receive Software)
http://www.nn4f.com/SDR-Console-V3-SDRPlay-RSP_QuickGuideTips.pdf (Help file)
<http://physics.princeton.edu/pulsar/k1jt/wsjsx.html> (WSPR & ++ Software)
<http://physics.princeton.edu/pulsar/k1jt/wsjsx-doc/wsjsx-main-1.7.0.html> (WSJT-X Help)
<http://dev.wsprnet.org/drupal/> (Site for WSPR reception reports)
<https://www.raspberrypi.org/downloads/raspbian/> (Get Raspbian Jessie & Pixel image)
<https://github.com/JamesP6000/WsprryPi> (Makes Raspberry Pi into a WSPR TX)
http://www.gqrp.com/harmonic_filters.pdf (DIY Low-Pass filter component values)
<http://www.kitsandparts.com/rfamp1.3.php> (A 20dB 2-30 MHz linear amp kit - \$12)
<http://www.sotabeams.co.uk/wsprlite> (A portable 200mW WSPR TX - \$75)
<http://www.qrp-labs.com/ultimate3/u3s.html> (More versatile than WSPRlite - kit - \$130)
<http://sdr.hu/> (Remote RX - For WSPR enabled RX use CTRL+F to find K2SDR, WD3C, N2LAW, WX4D, KH6ILT, N1BPD, KD2OM, W5UXH, KA7U, WA6OUR)

Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

12/12/2017	RARS pot luck Holiday party. Sign up at the RARS website . RARS Officers induction.	Election committee
1/9/2018	RFI tracking and location.	Dave Wood, W4EJ
2/13/2018	TBD	TBS
3/13/2018	Awards, RARS Birthday Party (2/12/69) & RARSfest Update	RARSfest chair

New HAM / Elmer meeting, 6:00 p.m. before the member meeting

Tadd Torborg, KA2DEW, Elmer Coordinator

The New Hams meeting is held every month before the regular RARS meeting. We'll try to start by 6pm. We try to address topics in a manner that will be of help to hams in their first year of operation.



Tadd KA2DEW talking about coax connectors

In December we are going to cooperatively solder a kit together

November Door Prize winners



Dennis WZ0Q, Marty W4MY, Rizir W4EMD, Tadd KA2DEW,
Mike KN4DVR, and Steve W4MGT

Future Hamfests

A full list of Hamfests can be found at the [ARRL website](#).

01/06/2018 | [Winston-Salem FirstFest](#)

Location: Winston-Salem, NC

Type: ARRL Hamfest

Sponsor: Forsyth Amateur Radio Club

Website: <http://www.w4nc.com/>

03/31/2018 | [North Carolina State Convention \(Raleigh Hamfest\)](#)

Location: Raleigh, NC

Type: ARRL Convention

Sponsor: Raleigh Amateur Radio Society

Website: <http://rarsfest.org>

02/03/2018 | [Virginia State Convention \(Frostfest\)](#)

Location: Richmond, VA

Type: ARRL Convention

Sponsor: Richmond Amateur Telecommunications Society

Website: <http://frostfest.com>

2018 NCQP Contest Committee



From left to right - Marc-W4MPS, Marty-W4MY, Joanne-AA3N, Dwayne-N4MIO, Charles-WB4DCM, Andy-AA9P, Bill-W4WNT (W4MPS photo)

The [NCQP Contest](#) Committee met in November. Thanks to Marc, W4MPS for sending this in.

BikeMS New Bern continues to rely on hams from RARS and the Triangle to support 2000 cyclists in the two-day event.

I've been volunteering for the BikeMS since 1991, when about 300 riders went from Clayton to Camp Seagull on the Neuse River - a 150 mile course. Back then it was called the MS-150, and most hams still call it that, but now it offers 30, 50, 75 and 100 mile courses each day. So.. BikeMS.

The event moved to New Bern around 1999, and quickly expanded to 2000+ riders, with many hundreds more support volunteers, including the hams. Through the early 2000s, we were the only course communications, and even today much of the territory has no cell coverage. When there is coverage, the MS staff does a lot of texting and calling.

The MS folks have learned a lot, and logistics improve every year. Radio traffic used to consist of lots of calls for ice, cups and snacks to move from one rest stop to another. We all learned that it takes a long time to accomplish that, and by the time the supplies arrive, they're probably not needed any more. The rest stops are better supplied now, with contingency plans if they run low.

Radio traffic still carries some logistics, but it's more focused on safety and emergencies. A 50, 75 or 100 mile bike ride isn't easy. Most people - even seasoned riders - wouldn't try it without support. The rest stops give them the break they need about every 10 miles. And seeing a well-marked ham/SAG drive by every few minutes gives them the assurance that they won't be stranded on a lonely rural road with a breakdown, accident or injury.



A Special Thank You: HAM Radio Operators

Continued from the previous page



Brian KA9QJT with XYL Elizabeth (left), and Gary KN4AQ (right) receive "Impact Awards" at a BikeMS ceremony in Raleigh on November 14.

This year was a very safe ride, but there were still a few ambulance calls. The MS staff trusts hams enough to put the first ham on the scene of an incident in charge until a director or police arrive.

There are over 80 BikeMS events all over the US each year, with hams helping each one. The New Bern ride us among the Top Ten, and raised over \$1.7 Million this year.

There is a little bad news, though. The number of hams supporting the event is dropping. We've seen as many as 50 hams in past years. This year was about 30. That meant some rest stops didn't have a ham, which meant getting information from them was slower. And there were fewer SAGs, so longer gaps between them. We've lost hams, mostly because regular volunteers have moved out of the area. Some lost interest. Some got too old. And some have passed away. That happens over 30 years. New hams have joined the team, of course, with the same dedication as the old timers. Just not enough.

There are some obstacles. The New Bern location is remote from Raleigh. Hotels are kind of expensive and fill up early (it's not too early to book now). When the event moved, many Downeast hams joined up, but again, not enough.

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Bill K4VHO at Net Control for BikeMS 2017, New Bern.

It doesn't take a lot of experience to do this. A car, bike rack and radio make you a SAG. A car and radio are all you need at a rest stop (were adding FRS radios to the mix now). There's a BikeMS New Bern Hams Facebook page to join. Bruce N8UTY and Bill K4VHO coordinate the hams, with help from Brian KA9QJT in Raleigh.

Bottom line: it's a fun, sometimes challenging, radio-intense weekend for a good cause. RARS hams participate in many public service events throughout the year now. BikeMS (aka MS-150) is where it started.

And here's a link to a video from a couple of recent BikeMS events :
<https://youtu.be/el5mfomycpk>

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508 Spencer Crest Ct
Cary NC 27513
919-380-9944
kn4aq@arrl.net
www.HamRadioNow.tv

"Noise Cancellers - RFI Survival Guide"

By John Fallows VE6EY, Calgary, Alberta

Earlier this year, I published a series of articles on my web site called "Noise Cancellers - RFI Survival Guide". The purpose of this information was to help hams and shortwave listeners lower their local HF noise floor and improve reception.

The URL is: <http://play.fallows.ca/wp/series/noise-cancelers-rfi-survival-guide/>

RFI Reflector on Contesting.com

I (N4TL) asked on the RFI reflector if these devices work. Here is one answer from Ed Hare, W1RFI ARRL Laboratory Manager. (<http://lists.contesting.com/mailman/listinfo/rfi>)

On 11/11/17 07:37, Hare, Ed W1RFI wrote:

Noise cancellers can be 30 to 50 dB effective against a single source of noise. They work by positioning a sense antenna that will pick up more noise than signal and combining that out of phase with the signal plus noise from your main antenna. That can be very effective.

They do have disadvantages, though. They don't work against multiple noise sources. They are tricky to set up and tune and if you QSY a few tens of kHz, you need to retweak the settings. They will also change the receive pattern of your antenna, so if you are using a directional antenna, your "noise" antenna will pick up signals from all directions, perhaps degrading your front-to-back ratio. And, no matter what, they will put a null in your receive pattern in the direction of the noise, so in that direction, you will pick up less signal, too.

Ed, W1RFI/5

Kids Day

January 6 and 7 are Kids Day. This is not an official ARRL function but is on their website and details can be found at: <http://www.arrl.org/kids-day>. This is a good opportunity to spread the "ham bug" to a future generation of hams. Get a kid on the air.

Murray K4MHM

The ARRL International Grid Chase

ANNOUNCING: THE ARRL INTERNATIONAL GRID CHASE! (1/1) – A new and exciting operating event will kick off on January 1, 2018, at 0000 UTC (New Year's Eve in US time zones), when the ARRL International Grid Chase gets under way. For further information, see <http://www.arrl.org/news/announcing-the-arrl-international-grid-chase> (source: ARRL website)

Yearlong NASA On The Air Event

YEAR-LONG NASA ON THE AIR EVENT KICKS OFF ON DECEMBER 11 (12/11) – “The Amateur Radio clubs at National Aeronautics and Space Administration (NASA) centers around the US have invited the Amateur Radio community to join the NASA On The Air (NOTA) special event. NOTA gets under way in December 2017 and continues through December 2018. Thanks to Rob Suggs, KB5EZ, NASA Marshall Space Flight Center, Amateur Radio Club (NN4SA), and Kevin Zari, KK4YEL, NASA Kennedy Space, Center Amateur Radio Club (N1KSC).” For further information, see <http://www.arrl.org/news/year-long-nasa-on-the-air-event-kicks-off-on-december-11> (sources: KB5EZ, KK4YEL, ARRL website)

South Florida Emergency Personnel

When All Else Fails, South Florida Emergency Personnel Use Radio To Communicate
<http://wlrn.org/post/when-all-else-fails-south-florida-emergency-personnel-use-radio-communicate>

American Radio History

<http://www.americanradiohistory.com/index.htm>

<http://www.americanradiohistory.com/Popular-Electronics-Guide.htm>

Raleigh Amateur Radio Society

Minutes

RARS Board Members

Date | time 10/17/17 @ 7:20pm | *Meeting called to order by* Dennis Keith NC4DK

In Attendance

6 Members, 2 Visitors

Approval of Minutes

No quorum present to approve September meeting minutes.

Nothing too new to add to meeting agenda

Vice President Report-Tom N4TL

Tom not present...no report given

Treasurer's Report-Greg KE4PAX

Greg not present...handout was given to the board for review

Directors Reports

Public Service-John K3RHJ: John stated nothing new since last meeting. There are 2 events left before season is ended and he is still looking for volunteers.

Education Director-Carl W8WZ: Carl stated the last technician class for the year was finished. 23 students registered, 19 students attended, 13 students took the test, and 11 students passed-2 becoming General Class at the same time. Those that passed and wanted to be matched with Elmers have been. The classes were videoed and will soon be edited by Tara, W4TSW, for placement online. Board and Carl also discussed several avenues of possible improvement on class layout between now and next year's start. He also wanted to note that all of us at RARS thanks Kurt for the great job he does as the teacher of these classes and that he has received a lot of positive feedback from the students that he will pass on to Kurt

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Public Information Officer-Charles KM4AMT: Not present, no report given

Immediate Past President-Murray K4MHM: Not present, no report given

Director-at-large-Joanne AA3N: present; nothing new to report

Director-at-large-Raymond NC4OO: Not present, no report given

Director-at-large-Marty W4MY: Not present, no report given

Other Reports

Scouting Coordinator-Charles KM4AMT: Charles was not present but Carl W8WZ gave a report that the Moore county BSA had to cancel their JOTA event due to lack of leadership. Carl W8WZ and Dennis NC4KD would be participating with the BSA here in Raleigh on the 21st in the local JOTA event.

FM Repeater Chair-Karl W4CHX: Not present, no report given

Exciter Chair-Tom N4TL: Not present, no report given

Food Service Chair-Bill AK4BL: Present; no new report to give

ARRL Liaison-Chuck K4HF: Chuck reminded everyone that if you want a chance to use the new low frequency bands then they need to apply now while license are available. Several members have already applied and been approved. They are also trying to recruit an ARRL representative to come to RARSFEST next year.

ARRL NC Section Manager-Karl W4CHX: Not present, no report given

Webmaster-Hank K4HM: Not present, no report given but it was mentioned by Chuck K4HF and Tara W4TSW that Hank is working on a new RARSFEST website that is easier to use on mobile devices and that there would be discussion in the first RARSFEST planning meeting of giving RARSFEST its own domain.

Director-at-large-Marty W4MY: Not present, no report given

RARSFEST Chair-Tara W4TSW: The first planning meeting of RARSFEST will be held the following Monday, Oct 23rd, at the Radio Reading Room on Six Forks. There were several lead positions that were open but they have now been filled with volunteers. Next month's report should be longer once the team has met for the first time and all issues and concerns are laid out for review.

Field Day Chair-Marty W4MY: Not present, no report given

NC QSO Party Chair-Marty W4MY: Not present, no report given

W4DW/W4RNC TRUSTEE: Not present, no report given

Net Manager-Mary KG4OQA: Not present, no report given

Old Business

Nominating Committee-States all positions now have nominees and are ready for voting in November meeting

New Business

No New Business

Additional Business/Comments/Announcements

John K3RHJ mentioned wanting to do something as a thank you to the 440 repeater owners that allow us to use their repeaters for public service events.

Next Meeting

11/14/2017, 2011 Ridge Road at 7pm

Meeting was adjourned at 8:45pm

Meeting Minutes taken and Submitted by Tara Goodwin W4TSW

Antique Radio conference & Cryptologic Symposium

The Carolinas Chapter of the Antique Wireless Association

Sponsors of Antique Radio Charlotte

An annual conference for antique and vintage radio collectors and historians

2018 also includes the Charlotte International Cryptologic Symposium

March 22-24, 2018

<http://cc-awa.club/>

<http://cc-awa.club/forum-speakers>

Minutes

Raleigh Amateur Radio Society

General Meeting
November 14, 2017

The monthly membership meeting of the Raleigh Amateur Radio Society met at the Ridge Road Baptist Church in Raleigh. The meeting was called to order by President Dennis, NC4DK, at 7:31 p.m.

The Pledge of Allegiance was recited.

There were 49 members present, which constituted a quorum. A quorum being present, a motion to accept the minutes of the October 10, 2017 meeting, as published in the Exciter, was made, seconded and approved.

Continuing Announcements:

The RARS Dinner takes place monthly on the first Tuesday (next: December 5th) at 6:30 p.m., at the Golden Corral, 6129 Glenwood Ave.

The RARS Board meeting takes place monthly on the third Tuesday (next: November 21st) at 7:00 p.m. in a conference room here at the Church. Members are invited to attend.

An After-meeting gathering takes place after each Membership meeting, at Applebee's, at Hillsborough and Gorman Streets.

A New Ham/Elmers meeting with new hams and anyone interested takes place before each membership meeting, at 6:00 p.m. at the church.

Guests: Dennis NC4DK introduced guests Kenn (NE4Y), Dave (KX4GC), and Tom (K4ZAD).

Officers' Reports:

Vice President: (Tom N4TL): You can see all remaining 2017/2018 program subjects in The Exciter. Next month will be the potluck supper and holiday party, and induction of the newly elected officers.

Treasurer: Greg, KE4PAX (not present), submitted a Treasurer's Report (attached to file) which shows 355 members this month. Anyone desiring additional treasury information may contact Greg for details.

Secretary: Bob NC1X- no report.

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Board & Committee Reports:

Education Director (Carl W8WZ): no report. All classes are finished for this year.

Public Service (John K3RHJ): PS is finished for the year. We had 15 events this year, and are adding two next year. John described a typical event. The Public Service calendar is at www.rars.org/public-service.php.

Field day (Marty W4MY): We will be back at the police club. The results for last June are: First in NC for 8A. First in Roanoke Division 8A. Nationwide we were 3rd of all the 8As.

FM Repeater (Karl, W4CHX): Karl W4CHX thanked Danny Hampton K4ITL and Chuck deCourt W3WZN for their work on the RARS repeaters. The interlink radios are being tested, which will link the 146.64 and 145.13 repeaters. It has been decided that these repeaters will be linked only during high traffic periods. The new hardline has been delivered and is ready to install at the 145.13 repeater site.

ARRL Section (Karl, W4CHX): The ARRL Officers and Board of Directors have empowered a committee to review all aspects of services delivered by the ARRL, including ARES and NTS. No information on their deliberations has been released to the Members. Karl W4CHX will keep us informed on this matter.

RARSfest (Tara, W4TSW): RARSfest will be on Easter weekend next year (March 31, 2018). There is a new RARSfest webpage different from the RARS site, courtesy of Hank K4HM.

NC QSO Party (Marty W4MY): The next NC QSO Party will be on the last weekend in February (24 and 25), 2018. A new website will debut December 1, ncqsoparty.org.

At-large Directors: no reports

Old Business: none

New Business: none

Prize drawing – Prizes were won by Dennis WZ0Q, Marty W4MY, Rizir W4EMD, Mike KN4DVR, Tadd KA2DEW and Steve W4MGT.

New Business: RARS Elections

Chuck K4HF presented the Nominating Committee's Report/Recommendations:

RARS Officers for a Two-year term:

President: Carl Davis W8WZ

Secretary: Tara Goodwin W4TSW

RARS Board Members for One- year term:

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Public Service Director: John Stone K3RHJ

Public Information Officer: Charles Good, KM4AMT

RARS Exciter Editor: Tom Lewis, N4TL

RARSfest 2018 Chair: Tara Goodwin W4TSW

Co-chair Ian Hewitt N0IAN

RARS Net Manager: Virginia Enzor NC4VA

At-Large Director: Alan Pitegoff, AB4OZ

At-Large Director: Joanne Mars, AA3N

At-Large Director: Marty Young, W4MY

FM Repeater Chair: Karl Bowman, W4CHX

W4DW, W4RNC, N4RAL Trustee: Jeff Wittich, AC4ZO

ARRL Liaison: Chuck Littlewood, K4HF

RARS Education Director: Carl Davis, W8WZ

Youth Director: Murray Merner, K4MHM

RARS Webmaster: Hank Montgomery, K4HM

RARS Chairs:

RARS Food Service Chair: Bill Mars, AK4BL

RARS NC QSO Party Chair: Marty Young, W4MY

RARS 2018 Field Day Chair: Marty Young, W4MY

RARS Volunteer Exam Coordinators – Liz White KO4CK and Joe White, WA4GIR

Nominations were closed and the slate was elected by acclamation.

Program: Tom N4TL introduced Alan AB4OZ for a tech tip. Alan discussed ferrites for RF interference reduction.

Tom also introduced Tom K4ZAD who gave a presentation on WSPR (Weak Signal Propagation Reporter). It uses WSJT-X software from Joe Taylor. The reporting system for WSPR is WSPR NET, which shows all the reports worldwide. If you want to transmit, you can use a Raspberry Pi based transmitter to add your signals to the reports.

The meeting was adjourned by vice president Tom N4TL at 9:06 p.m.

Respectfully Submitted,
Robert E Chapman, NC1X
RARS Secretary

RARS Classifieds

Copied from www.rars.org/classifieds.php

The items below were listed within the last 30 days on the RARS website.

QRO HF-2500DX Amplifier for sale

Posted November 22nd, 2017 by: K4BYN

Contact: k4byn@att.net

QRO HF-2500DX Amplifier for sale:

I purchased this amp new in late Dec 2011. This is a heavy duty 1500 watt plus amp that runs off 200/240 VAC, 25 to 40 watts in will get you max smoke out. Continuous run, no intermittent stuff, great for RTTY and other digital. Uses two (2) 4CX800A tubes that are still available at a reasonable price when and if you ever need one. Original manual and shipping carton. Local sale preferred to avoid FedEx ship costs and insurance estimated to be \$120 CONUS. Check out

Mic for ICOM IC-28H

Posted November 22nd, 2017 by: WZ0Q

Contact: wz0q@outlook.com

Looking for anyone of these mics.

ICOM HM-14/HM-16 or HM-17.

919-413-5998.

Dennis

Wz0q

FS, Sony ICF-6700W multiband radio

Posted November 21st, 2017 by: N4TL

Contact: n4tl2@yahoo.com

For Sale, Sony ICF-6700W multiband radio with copies of the operating and service manuals. The radio works on all bands. Sometimes the band switch needs to be moved back and forth to make good contact. The same is true with the LSB mode. The AFC switch is broken and is stuck in the ON position. Other than those issues the radio is in good condition and the battery compartment looks like it has never been used. Asking \$225. Contact N4TL at n4tl2@yahoo.com.

Continued from the previous page

Ham Radio Items for Sale

Posted November 15th, 2017 by: K4HF

Contact: k4hf@arrl.net

This gear has been checked out and is in very good or excellent working condition;
many with manuals:

ICOM IC-451A Multimode 430/440 MHz Transceiver - \$125.

Kenwood Base Mike MC-60 - \$75.

Yaesu FT-221 2M Multimode Transceiver - \$125.

Dentron Monitor Jr. 80-10M 200 Watt HF Antenna Tuner - \$40.

Cornell-Dubilier Parade Float



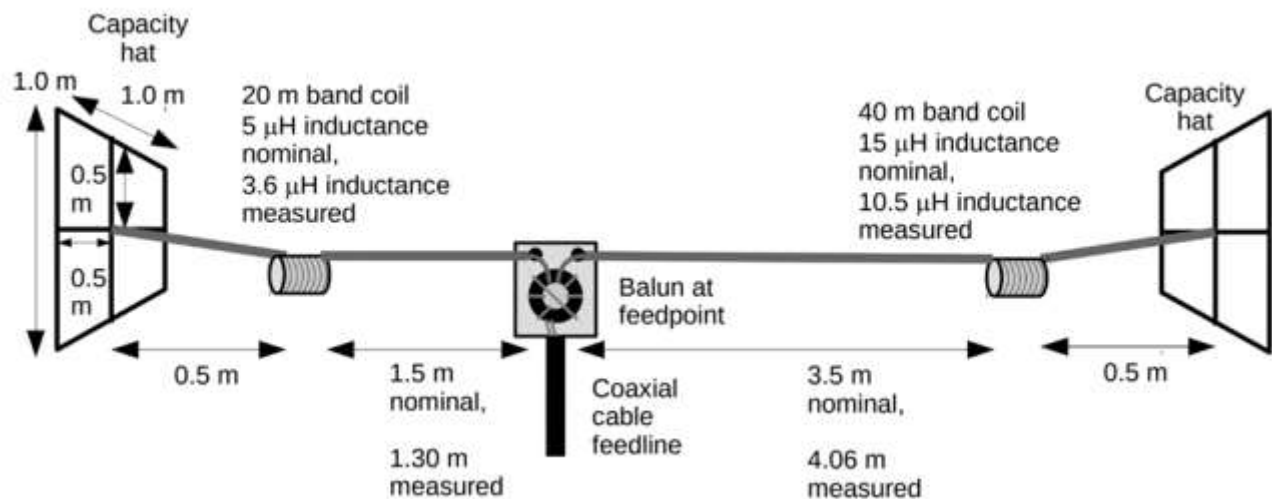
Does anyone remember Cornell-Dubilier in the Raleigh area?

From the Way Back Machine.

Thanks to Dennis, NC4DK for providing this picture.

A short, off-center fed dipole for 40 m and 20 m by Daniel Marks, KW4TI

Abstract: This antenna is a 20 to 25 foot long (6.0 m to 7.6 m) off-center fed dipole antenna for the 20 m and 40 m bands designed for those who need to conceal an antenna. It is small enough to fit inside the attic of many homes. It can also be set up as a short vertical antenna that does not need a radial system. Because the antenna is short, it has large capacity hats to help raise its efficiency which are generally small enough to fit indoors in an attic. The design has been tested and simulations performed to verify that efficiency can be maintained for such a small antenna. The free-space gain at 40 m is estimated at -0.3 dBi, and at 20 m at 0.05 dBi, with 1.76 dBi being the theoretical maximum for a short dipole. Ground gain will usually result in higher in-situ gain in proximity of real ground.



Dan, KW4TI, has developed a small attic antenna for the 20 m and 40 m bands. Some of the information for the antenna is shown here. Full information is on the RARS website. www.rars.org

46th Annual RARSfest
ARRL NC State Convention
March 31, 2018 at NC State Fairgrounds

The Raleigh Amateur Radio Society annual RARSfest will be the host site for the 2018 ARRL North Carolina State Convention, located in the 100,000 sq. ft. Jim Graham Building at the North Carolina State Fairgrounds, 1025 Blue Ridge Rd. from 8:00 A.M till 3:00 P.M on March 31st. (Easter Saturday).

RARSfest is an all indoor event with attendance typically between 1600 and 2000 featuring 40 - 50 commercial booths, several hundred flea market tables (last year all but 13 flea market tables were sold!) and a restaurant. Expected activities include Hands-on Construction Projects, Walk-In License Exams, Door Prizes, Forums, ARRL Division, Local and HQ Staff, QSL Checking, a Get-On-The-Air (GOTA) Station, and an indoor Fox Hunt. And don't forget the famous Friday evening complementary dinner for our vendors from 7-8 PM.

After the 2017 RARSfest we asked for your feedback about the Hamfest. We thank all of you who provided suggestions. The RARSfest staff has worked on a number of changes for the 2018 event based on your suggestions. We encourage you to look over our brand new RARSfest website for more information. You can now also find us on Face Book and on Twitter.

Pre-registration for RARSfest begins on January 1st 2018. You will be able to purchase admission tickets online for \$8.00 and tables for \$18.00 until one week before the Hamfest. Tickets will be available at the door for \$10.00 and tables will be available for \$20.00 on a first-come basis.

Setup times will be Friday from noon until 9 PM and Saturday morning from 6:00 - 8:00 AM. All vehicles are required to be out of the building before we can open to the public. All vehicles will need exit the building by 7:30 on Saturday morning.

Please keep an eye on the RARSfest website for updated information as it becomes available at <http://rarsfest.org>

To all who attended the 2017 RARSfest, RARS thanks you for your support. Attendees reported that the vendor/dealer Welcome Dinner on Friday night was excellent as always. And we hope you will find the changes for 2018 make the upcoming event better than ever.



1970 RARSfest Program

Thanks to Bill, K4CIA for loaning this program to your editor.

This booklet is 28 pages long. It has the program, Ham Radio equipment advertising and pictures of officials. There also is local business advertising.



THE 1970 ARRL Roanoke Division CONVENTION

**October 31 - November 1, 1970
Raleigh, N. C.**

SPONSORED BY THE RALEIGH AMATEUR RADIO SOCIETY

The Raleigh Amateur Radio Society is planning a "REAL-L-L-YBIG SHOW" for the 1970 ARRL Roanoke Division Convention this year. Come to Raleigh, N. C. and get in on all the fun and attend your choice of seminars, technical discussions, and forums, as well as a highlight of the Convention - the Banquet to be held Saturday night featuring a prominent speaker.

- ★ LOTS OF PRIZES ★ ARRL FORUM WITH JOHN HUNTOON, LEW McCOY, AND VIC CLARK ★ MANUFACTURERS PRESENTATIONS ★ FLEA MARKET
- ★ MARS, CD, and RACES SESSIONS ★ WOUFF HONG CEREMONY
- ★ GETTING STARTED IN HAM RADIO ★ AMATEUR SPACE COMMUNICATIONS
- ★ CW (including Left-Foot), QSL, and HOMEBREW CONTESTS ★ EXHIBITS
- ★ DX FORUM ★ QCWA MEETING ★ FM and REPEATERS ★ ANTENNAS
- ★ YL - XYL PROGRAM complete with demonstrations, luncheon, and Shopping Spree in Raleigh's North Hills Shopping Center

All Prices Will Be Higher
At The Door.

Advance registrations must
be postmarked no later than
October 20, 1970.

ADVANCE CONVENTION REGISTRATION ---\$2.75
ADVANCE COMBINATION: ONE (1) EACH REGISTRATION AND
BANQUET RESERVATION --- \$10.50

ADVANCE BANQUET RESERVATIONS FOR MEMBERS OF IMMEDIATE
FAMILY --- \$8.00

ADVANCE YL - XYL PROGRAM REGISTRATION ---\$3.50

Don't get left out and miss the great 1970 ARRL Roanoke Division Convention. Mail in the bottom portion now and enclose a check or money order payable to "RARS 1970 CONVENTION" to make sure you have a place. Be sure to bring the YL-XYL; she will never forgive you if you don't.

Convention headquarters is the Hilton Inn in Raleigh. The Inn has set aside a block of rooms for those of you who wish to stay overnight. **PLEASE MAKE YOUR RESERVATIONS DIRECT WITH THE INN.** Be sure to get your reservations in early as these rooms will go fast. Rates: 1 person - \$12.50; 2 persons - \$16.00. Address: The Hilton Inn, Amateur Radio Convention, 1707 Hillsborough Street, Raleigh, N. C. 27605; telephone 919-828-0811.

TO: Mr. John Fried, W4WWD, 3606 Winton Road, Raleigh, N. C. 27604

1970 RARSfest Flyer.

Notice that the hotel charged \$12.50 per night

----- MORE CONVENTION INFORMATION -----

The 1970 ARRL ROANOKE DIVISION CONVENTION will be held in Raleigh, North Carolina Saturday, October 31 and Sunday, November 1. The Raleigh Amateur Radio Society has gone all-out to sponsor one of the Division's finest conventions ever.

Planned activities include an ARRL forum with headquarters and field league officials, technical sessions, QCWA meeting, DX forum, MARS-CD-RACES sessions, a flea market, code contest, homebrew contest, QSL card contest, antennas seminar, manufacturers' presentations, FM and Repeater sessions, numerous other get-togethers, and don't forget the Wouff Hong ceremony at midnight Saturday.

Several manufacturers will have their latest radio gear and related equipment on display during the day Saturday.

The RARS will conduct a "talk-in" on Friday night and Saturday morning for those of you who are mobiling into the Raleigh area and want directions to the Convention headquarters, the Hilton Inn. Stations will be on 80 meter SSB at 3920 kHz, 6 meter SSB at 50.14 MHz, and 2 meter FM at 146.94 MHz.

A flea market will be held on Saturday beginning at 10:00 a.m. There will be an opportunity to browse and swap or sell all kinds of gear-old and new. All flea market parking available will be assigned on a first come, first served basis. Write "Flea Market", W4EEL, P. O. Box 12541, Raleigh, N.C. 27605.

A highlight of the convention will be the gala banquet held Saturday night, October 31. Good food and a prominent speaker will be featured. There will be plenty of opportunity for personal get-togethers and "eyeball QSO's" with all those fellow hams you've worked so many times but have never met. Climaxing the evening will be the Wouff Hong Ceremony at midnight.

A hospitality suite will be open at the inn on Friday night for early arrivals and will continue in operation Saturday and Sunday.

GIRLS, WE HAVEN'T FORGOTTEN ABOUT YOU. Our YL's and XYL's have planned a program that will be a highlight of the convention for you. Beginning Saturday morning, you will have a busy day with a presentation on cosmetics given by Merle Norman Cosmetics, a luncheon full of surprises, and a great big shopping spree at Raleigh's North Hills Shopping Center, one of the Southeast's finest fully enclosed, all-weather malls with over 85 stores of every kind and quality to serve you. In addition, the gals have reserved a hospitality suite at the Inn solely for your use so that you can prop up your feet, stretch out, and loosen that tight girdle while enjoying a cup of coffee, relaxing, and comparing the "advantages" of being a ham widow.

Due to limited facilities, we are forced to limit the number of banquet tickets. We have already had a tremendous response to this convention and reservations are going fast on a first come, first served basis. So get your request in to John Fried, W4WWD, 3606 Winton Road, Raleigh, N. C. 27604 EARLY!!!

WE'RE LOOKING FOR YOU AT THE 1970 ARRL ROANOKE DIVISION CONVENTION!

Raleigh Amateur Radio Society, Inc.
Post Office Box 12541
Raleigh, North Carolina 27605

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